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Total Number of Pages in This Submission

15

Application Number

09/916,779

Filing Date

07/27/2001

First Named Inventor

Ronald J. Skrzymlarz

Art Unit

1771

Examiner Name

Victor S. Chang

Attorney Docket Number

1945.BDM

**RECEIVED  
CENTRAL FAX CENTER****DEC 20 2005****ENCLOSURES (Check all that apply)**

Fee Transmittal Form



Fee Attached



Amendment/Reply



After Final



Affidavits/declaration(s)



Extension of Time Request



Express Abandonment Request



Information Disclosure Statement



Certified Copy of Priority Document(s)

Reply to Missing Parts/  
Incomplete ApplicationReply to Missing Parts  
under 37 CFR 1.52 or 1.53

Drawing(s)



Licensing-related Papers



Petition

Petition to Convert to a  
Provisional Application

Power of Attorney, Revocation



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Terminal Disclaimer



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Remarks



After Allowance Communication to TC

Appeal Communication to Board  
of Appeals and InterferencesAppeal Communication to TC  
(Appeal Notice, Brief, Reply Brief)

Proprietary Information



Status Letter

Other Enclosure(s) (please identify  
below):**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name

National Starch and Chemical Company

Signature

Printed name

Cynthia L. Foulke

Date

December 20, 2005

Reg. No.

32,364

**CERTIFICATE OF TRANSMISSION/MAILING**

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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**RECEIVED  
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DEC 20 2005**

In re Application: Skrzyniarz et al.	)	Group Art Unit: 1771
	)	
Serial No.: 09/916,779	)	Examiner: Victor C. Chang
	)	
Filed: July 27, 2001	)	Atty. Docket No.: 1945.BDM
	)	

For: FOAMED ADHESIVE AND USE THEREOF

**BRIEF ON APPEAL**

Commissioner for Patents  
Alexandria, VA 22313-1450

Sir:

Applicants hereby appeal the decision of the Primary Examiner finally rejecting claims 12-18, 21 and 22, all pending claims. A timely Notice of Appeal was filed on July 20, 2005. A three month extension of time, extending the period for filing this brief until December 20, 2005, is being concurrently filed herewith

A Brief was filed March 17, 2004, in response to which prosecution was reopened. As the fee for filing a Brief in this application has been previously paid, no further fee is believed due in connection with the filing of this Brief.

The commissioner is authorized to charge to required fees due in connection with the filing of this Brief to applicants' deposit account.

A copy of the claims involved in this appeal is set forth in the *Claims appendix*.

### *I. Real party in interest*

The real party in interest, as evidenced by the assignment document recorded July 27, 2001 (Reel 012048, Frame 0282), is National Starch and Chemical Investment Holding Corporation.

### *II. Related appeals and interferences*

There are no other appeals or interferences known to applicants which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

### *III. Status of claims*

Claims 12-18, 21 and 22 are pending and have been finally rejected. Claims 1-11, 19 and 20 have been canceled.

The rejections of claims 12-18, 21 and 22 are being appealed.

### *IV. Status of amendments*

No rejection after final rejection was made.

### *V. Summary of the claimed subject matter*

The invention is directed to articles of manufacture comprising a core material and a surface material, wherein the core material is a wood composite and the surface material is a high pressure laminate. In accordance with one embodiment of the invention, the wood composite is bonded to the high pressure laminate with a foamed

polyvinyl acetate emulsion-based adhesive (page 2, lines 10-16). In another embodiment, the adhesive comprises a blend of at least two polyvinyl acetates (page 4, line 29 to page 5, line 5). A particularly preferred embodiment is directed to a countertop comprising a wood composite bonded to a high pressure laminate using an adhesive comprising a foamed emulsion-based adhesive, which adhesive comprises a blend of at least two polyvinyl acetates, a starch filler and at least one additive selected from the group consisting of a surface active agent, a defoamer, a preservative and a UV indicator ( page 3, lines 10-16 and page 5, lines 6 to page 6, line 14).

*VI. Grounds of rejection to be reviewed on appeal*

- A. CLAIMS 12, 13 AND 22 STAND FINALLY REJECTED UNDER 35 U.S.C. § 103 AS BEING UNPATENTABLE OVER MURPHY ET AL. (U.S. PATENT NO. 4,036,673).
- B. CLAIMS 14-17 AND 21 STAND FINALLY REJECTED UNDER 35 U.S.C. § 103 AS BEING UNPATENTABLE OVER MURPHY ET AL. (U.S. PATENT NO. 4,036,673).
- C. CLAIM 18 STANDS FINALLY REJECTED UNDER 35 U.S.C. § 103 AS BEING UNPATENTABLE OVER MURPHY ET AL. (U.S. PATENT NO. 4,036,673).

*VII. Argument*

- A. The examiner erred in determining that claims 12, 13 and 22 are obvious over Murphy et al.

Applicants' invention is directed to articles of manufacture comprising a core material and a surface material, wherein the core material is a wood composite and the surface material is a high pressure laminate. In accordance with the invention the wood composite is bonded to the high pressure laminate with a foamed polyvinyl acetate

emulsion-based adhesive. Articles of manufacture encompassed by the invention include countertops, architectural panels, flipper doors and the like.

Claims 12, 13 and 22 stand finally rejected under 35 U.S.C. § 103 as being obvious over Murphy et al. (U.S. Patent No. 4,036,673).

Murphy discloses use of an adhesive composition comprising water, filler, resinous adhesive, plasticizer and tackifier (see, e.g., col. 6, lines 50-52). Murphy describes a method of for installing a surface covering material on a surface such as a floor surface or a wall surface, using an adhesive that will conform to irregularities common on such surfaces.

While polyvinyl acetate is included in the list of suitable resins, vinyl acrylic copolymers are preferred adhesive agents (col. 2, lines 56-58, col. 6, lines 62-62). Vinyl acetate butyl acrylate copolymer is disclosed as being particularly preferred (col. 3, lines 60-62), and this is the resin used in all exemplified formulations (Examples 1-4). The adhesive is foamed and used to attach a floor surface covering material to a floor. The adhesive is foamed and applied in the foamed state in the field by the installer of the surface material.

Murphy discloses (col. 3, lines 8-14):

The method of the present invention may be used in installing sheet goods such as large widths or tiles of floor covering of vinyl, vinyl-asbestos, vinyl-foamed vinyl-asbestos, cellulose backed vinyl, jute or foam backed carpeting and the like; wall coverings such as fabric-backed polyvinyl halide, polyvinyl halide coated paper, and the like.

Again, Murphy only teaches adhesives and methods for bonding particular surface covering materials installing a surface covering material on a surface such as a floor surface or a wall surface, but in particular a floor surface, using an adhesive that

will conform to irregularities common on such surfaces. There is no disclosure in the Murphy patent that wood composites may be bonded to high pressure laminates using a foamed polyvinyl acetate based adhesive as required in applicants' claimed invention.

Applicants disagree that a skilled artisan would be motivated by a desire to use a quicker and easier method to obtain an improved bonded article, such as a smooth even finish. There is no disclosure in Murphy that would lead the skilled artisan to the claimed invention let alone provide any indication that such could be successfully accomplished.

Murphy (col. 1, lines 18-26) merely discloses that:

The prior art has suggested many methods for installing a surface covering material on a surface such as a floor surface, wall surface, counter top, ceiling, upholstery substrates or the like.

Murphy goes on to disclose (col. 1, lines 18-23):

Many types of adhesives or adhesive products have been used, but the type of adhesive used depends to a large extent upon the use to which the surface covering will be subjected, as well as the nature of the surface covering material and the surface being covered.

Murphy only teaches adhesives and methods for bonding particular surface covering materials to specific flooring surfaces. Murphy does not teach or suggest countertops or any other article wherein a wood composite material is bonded to a high pressure laminate using a foamed adhesive comprising polyvinyl acetate, and fails to provide a reasonable expectation of success.

It is well known that in order to establish a *prima facie* case of obviousness; three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference(s) or in the knowledge generally available to one of ordinary skill in the art, for the modification. Second, there must be a reasonable expectation of success. Third,

the prior art reference must teach or suggest all the claimed limitations. In addition, the teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, not in applicants' disclosure. See, *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991) and MPEP 214.

The examiner has failed to meet these requirements. There is no disclosure in *Murphy* that would lead the skilled artisan to the claimed invention let alone provide any indication that such could be successfully accomplished. *Murphy* fails to suggest and does not provide any motivation to use foamed adhesive as claimed by applicants to bond a wood composite core material to a high pressure laminate. *Murphy's* enabling disclosure and claims are directed to applying a surface covering to a floor surface. *Murphy* fails to provide teachings suggestive of a reasonable expectation of success. *Murphy* fails to teach or suggest all the claimed limitations.

Applicants urge that the examiner has failed to establish a *prima facie* case of obviousness. Reversal of the examiner's Section 103 rejection of claims 12, 13 and 22 as being obvious over *Murphy et al.* is requested.

B. The examiner erred in determining that claims 14-17 and 21 were obvious over *Murphy et al.*

Applicants' invention is directed to articles of manufacture comprising a core material and a surface material, wherein the core material is a wood composite and the surface material is a high pressure laminate. In accordance with the invention the wood composite is bonded to the high pressure laminate with a foamed emulsion-based adhesive, which adhesive comprises a blend of at least two polyvinyl acetates.

Claims 14-17 and 21 stand finally rejected under 35 U.S.C. § 103 as being obvious over Murphy et al. (U.S. Patent No. 4,036,673).

Applicants incorporate herein by reference the above arguments relating to claims 12, on which claims 14-17 and 21 ultimately depend.

Murphy fails to suggest the use of a foamed emulsion based adhesive comprising a blend of at least two polyvinyl acetates. Murphy does not suggest or provide any motivation to use a foamed polyvinyl acetate based adhesives containing a blend of at least two polyvinyl acetates, to bond a wood composite to a high pressure laminate.

Applicants urge that the examiner has failed to establish a *prima facie* case of obviousness. Reversal of the examiner's Section 103 rejection of claims 14-17 and 21 as being obvious over Murphy et al. is requested.

C. The examiner erred in determining that claim 18 was obvious over Murphy et al.

Applicants' invention is directed to countertops comprising a core material and a surface material, wherein the core material is a wood composite and the surface material is a high pressure laminate. In accordance with the invention the wood composite is bonded to the high pressure laminate with a foamed emulsion-based adhesive, which adhesive comprises a blend of at least two polyvinyl acetates, a starch filler and at least one additive selected from the group consisting of a surface active agent, a defoamer, a preservative and a UV indicator.

Claim 18 stands finally rejected under 35 U.S.C. § 103 as being obvious over Murphy et al. (U.S. Patent No. 4,036,673).

Applicants incorporate herein by reference the above arguments relating to claims 12, on which claims 14-17 and 21 ultimately depend.



Murphy fails to suggest the use of a foamed emulsion based adhesive comprising a blend of at least two polyvinyl acetates. Moreover, Murphy does not suggest or provide any motivation to use a foamed polyvinyl acetate based adhesives containing a blend of at least two polyvinyl acetates, to bond a wood composite to a high pressure laminate in the manufacture of a countertop.

Murphy fails to suggest a countertop comprising a wood composite to a high pressure laminate, wherein the wood composite is bonded to the high pressure laminate using an adhesive comprising a foamed emulsion-based adhesive, which adhesive comprises a blend of at least two polyvinyl acetates, a starch filler and at least one additive selected from the group consisting of a surface active agent, a defoamer, a preservative and a UV indicator.

Applicants again refer to the disclosure of Murphy and col. 1, lines 18-26:

The prior art has suggested many methods for installing a surface covering material on a surface such as a floor surface, wall surface, counter top, ceiling, upholstery substrates or the like.

And to the disclosure at col. 1, lines 18-23:

Many types of adhesives or adhesive products have been used, but the type of adhesive used depends to a large extent upon the use to which the surface covering will be subjected, as well as the nature of the surface covering material and the surface being covered.

Murphy et al, clearly teaches that selection of an adhesive will necessarily depend on the end use and the nature of the substrates to be bonded together. There is no suggested that the adhesive of Murphy, let alone an adhesive comprising a foamed emulsion-based adhesive, which adhesive comprises a blend of at least two polyvinyl acetates, a starch filler and at least one additive selected from the group consisting of a surface active agent, a defoamer, a preservative and a UV indicator can be used to bond a

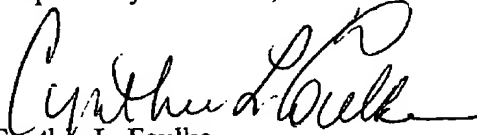
wood composite to a high pressure laminate in the manufacture of a manufacture a countertop.

Applicants urge that the examiner has failed to establish a *prima facie* case of obviousness and again submit that the examiner's rejection of claim 18 was constructed through the impermissible use of hindsight and that the claimed subject matter is not obvious over Murphy et al.

Reversal of the examiner's Section 103 rejection of claim 18 as being obvious over Murphy et al. is requested.

Applicants submit that the claim subject matter is patentable over the prior art applied by the examiner. The rejection of record cannot be sustained and the Board is requested to reverse the examiner's rejection.

Respectfully submitted,

  
Cynthia L. Foulke  
Reg. No. 32,364

December 20, 2005

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*Claims appendix*

12. An article of manufacture comprising a wood composite and a high pressure laminate, wherein the wood composite is bonded to the high pressure laminate using a foamed adhesive comprising at least one polyvinyl acetate emulsion.
13. The article of claim 12 where the foamed adhesive is foamed from about 20 to about 60% by volume.
14. The article of claim 12 wherein the foamed adhesive comprises a blend of at least two polyvinyl acetates.
15. The article of claim 14 wherein the foamed adhesive further comprises a polysaccharide filler.
16. The article of claim 15 wherein the polysaccharide is a starch.
17. The article of 16 wherein the foamed adhesive further comprises an additive selected from the group consisting of a surface active agent, a defoamer, a preservative and a UV indicator.
18. The article of claim 17 which is a countertop.

21. The article of claim 14 wherein the foamed adhesive comprises at least one polyvinyl acetate prepared by batch polymerization and at least one polyvinyl acetate prepared by continuous polymerization.

22. The article of claim 12 wherein the foamed adhesive comprises from about 55 to about 85% of said at least one polyvinyl acetate emulsion and from about 5 to about 20% of a filler.

*Related proceedings appendix*

NONE

*Evidence appendix*

NONE